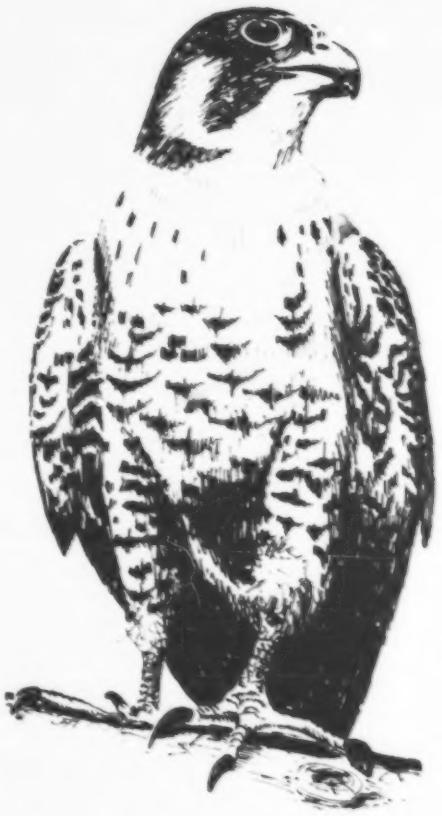
THE FALCON IS TELLING US SOMETHING



Report of the Committee of Inquiry on Falcons

April 1988

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REPORT OF THE
COMMITTEE OF INQUIRY ON FALCONS

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ERRATA

Page 1, line 28: "For example, out of 69 seabird colonies on the islands, only 24 are still active a few years later." should read: For example, out of 69 islands with burrowing seabird nesting colonies, 25 islands have been abandoned or have declining populations.

Page 1, line 29: "Over two-thirds" should read: On Langara Island, over two-thirds

Page 2, line 2: "120,000 pairs" should read: 80,000-90,000 pairs

Page 6, line 10: "South Moresby, which is to be made into a National Park, has 34 out of the total 57 nests. Langara Island has four nests and other nests are in ecological reserves. This leaves approximately ten nests on West Graham Island,..." should read: Moresby Island, the southern portion of which...Langara Island has five nests...leaves approximately ten nests on the west coast,...

Page 10, Recommendation 41: Delete: "Langara" from list of ecological reserves

Page 10, Recommendation 47: "to establish a baseline..." should read: to establish current trends...

Page 13, line 6: "Prior to 1971..." should read: Prior to 1961...

Page 16, line 15: "described as millions of seabirds are now counted in tens of thousands..." should read: described as a million birds on Langara Island is now counted...

Page 20, line 36: "indicates a small..." should read: suggests a small...

Page 24, line 31: Delete: "of Graham Island"

Page 25, line 3: Delete: "Langara" from list of ecological reserves

Page 26, line 30: "to establish a baseline..." should read: to establish current trends...

Page 27, line 4: Add: "Ministry of Forests and Lands for terrestrial habitat;..."

Cyril M. Shelford

Cyril Shelford, Commissioner
Committee of Inquiry on Falcons

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THE FALCON IS TELLING US SOMETHING

In the course of this review, I have talked with as many people as possible. I made it clear at the start that our goal had to be to maintain a healthy wild falcon population, which also means a healthy seabird population. Falcon populations will recover quickly, providing there is a plentiful food supply. This was proved after World War II when the greatest harvest in history took place in Europe and the Queen Charlotte Islands and, again, later when the falcon population was devastated by DDT-related chemicals.

Discussions with wildlife conservation officers, biologists, and environmental organizations on the question of the loss of seabird populations focused on such factors as:

* deep sea drag nets;
* drift nets close to seabird colonies (one fisherman at the Masset hearing reported taking 500 drowned seabirds from his nets and John Broadhead estimated a million a year);
* raccoons and rats;
* changes in sea currents;
* pesticides; and
* recreational fishermen, whose numbers are increasing.

I was especially interested in U.S. management policies regarding Peale's peregrine falcons and seabirds on which the falcons feed. For example, recent studies of storm petrels on Forrester Island have shown a drastic decline. The Americans were also quite impressed by research carried out by their Canadian counterparts.

Both provincial agencies and the Canadian Wildlife Service have done much research on the declining seabird numbers and possible reasons for the rapid decline in seabird colonies. For example, out of 69 seabird colonies on the islands, only 24 are still active a few years later. Over two-thirds of the nesting area has disappeared and only 26% of the nesting burrows are occupied. It takes 1,000 seabirds a year to feed one falcon family.

There was general agreement that on islands where raccoons and rats were present, nearly all seabird colonies were vacant, with no new areas starting up. There appears to have been a real decline over the last twenty years. For example, on Langara Island, based on reports from early settlers, lighthouse

keepers, and Native Indians, there were probably once over a million birds. Figures for 1971 show 120,000 pairs; for 1981, only 22,000 pairs and many vacant colonies. It is clear that there has been a tremendous loss.

This drastic decline in seabird numbers has affected falcon populations, too; they have not bounced back as they have in Britain and elsewhere. All to whom I spoke mentioned the need for more research--and the difficulty due to lack of money. There is a need for a coordinated effort by both Canada and the U.S. to make the best use of the limited funds available in both countries.

One major factor may be a chemical substance found in seabird eggs, which shows levels of undesirable toxic chemicals. Scientists believe the substance may originate in Asia, where some of our banned chemicals are still used.

Control of imported predatory animals--raccoons and rats--is also needed, starting with the small islands which could probably be cleared.

The establishment of the park on South Moresby could also bring many problems, if the predicted number of tourists comes about. People tramping on the seabird nesting areas will damage many nests, if they are not restricted to certain areas. Lights such as campfires will have to be controlled nocturnal seabirds are attracted to light like flies in the dark. This is the method the Indians used to catch the birds in the early days before the white man came to the Islands.

Most people today are deeply concerned with the mention of the harvesting of falcons, and many do not want any harvesting of any wildlife, whether it be big game hunting or trapping. However, the potential effects of limited harvesting of falcons should be compared to the factors which have caused really drastic declines in recent history.

During World War II, the military on both sides shot on sight any falcon they could see as well as destroying nests and breaking eggs. These scenarios were repeated in Britain, continental Europe, the Queen Charlotte Islands, Vancouver Island and many other places. This was probably the greatest harvesting of all time. It is remarkable that the falcons bounced back to their original numbers in five years.

The next and greatest destruction of all was during the time when the use of D.D.T., Aldrin, Dieldrin, and other pesticides, including anochlorine compounds, persisted. Their use nearly destroyed the falcon population in vast areas of all continents, including virtually all of Eastern Canada--Ontario,

Quebec and the Maritimes. It is again remarkable that the falcon population came back, following the ban by many countries of the use of these pesticides.

The falcon, like most predators, is at the top of the food chain and is never likely to thrive in great numbers. However, healthy populations survive throughout much of its historical range. Britain has over 1,000 pairs; Ireland - 300 pairs; Italy - 500 pairs; France - 600 pairs; Australia - 4,500 pairs; West Germany - 130 pairs; Alaska - 500 pairs; B.C. - 100 pairs. These denote only a few of the areas in which falcons are found. Even in the U.S. over 300 domestic-raised falcons a year are being released into areas where all the falcons were destroyed. This has been a very successful program after many years of trial and error.

Some of our falconers were among the first to successfully raise falcons in captivity and credit should be given to some of the early pioneers, both individuals such as Frank Beebe, George Galicz, as well as the wildlife services in both Canada and the U.S., and other organizations. They were also among the first to campaign for the protection of all raptors, to which the government of the day finally agreed. Before this, they could be shot on sight as vermin.

There was far more concern shown by those at the hearings for the falcon than for population of seabirds, the latter being the obvious key to a healthy falcon population. There is no doubt that the falcon, at the top of the food chain, is telling us humans <u>something is going wrong out there</u>. The time is now to try and discover the cause of the seabird slump, which is no longer a national but an international problem and one which should be treated as such. No one species can be treated in isolation, and any in-depth study should encompass the total environment and all nations should be encouraged to contribute to the cost.

If this is done properly with care, it will also likely uncover some of the reasons for the loss of much of our fish stocks. One would think that because salmon stocks are down, the small fish used by some seabirds would increase. This appears not to be so. The tiny fat particle in the plankton in the sea on the Pacific coast is reported to have a higher level of pesticide residue than that found in previous tests.

I would strongly recommend that the Minister of Environment take the lead in encouraging a coordinated effort along the entire Pacific coast. As we sit

between the state of Alaska and the U.S. West Coast, we are in an ideal position to host a conference in B.C. next year. Those invited to attend would be leading seabird and ocean scientists of the Pacific area, who would be asked to try and come up with answers to the problem.

The Queen Charlotte Islands are ideally situated for such an international study of seabirds and ocean life. It would be appropriate to coordinate joint international research efforts of the governments of Alaska, Washington, British Columbia, as well as the Queen Charlotte Islands and Royal B.C. Museums, universities, and South Moresby National Park through a local facility such as the Queen Charlotte Islands Museum.

It is impossible to study only one part of the whole food chain without following the whole chain. There is little doubt that some of these ecological changes that today affect our seabird population will later on affect the human population.

One of the shortfalls I see in past research on the Queen Charlotte Islands (as well as most government programs) is the lack of communication between the researcher and the people on the Islands. It seems that up to now the local population has been largely left out, a situation which should not happen. If the local population are not being consulted, they naturally do not feel part of the plan and resentment builds up. Such resentment is both understandable and obvious for all groups, including both the native and white population.

There is no question that at the start of any program or research the best plan is to find out as much information as possible from the older native population and others in the area. The research programs should then start from what information can be obtained locally. Also, the local population should be involved in the research project. Such involvement will make the results more meaningful when they are compiled into the final report. We have to be very conscious of the fact that the people of the Islands have seldom been involved in the decision-making process and have seen their limited resources leaving the Islands, thus providing little lasting benefit to them.

The experience and dedication of Wildlife Branch staff must also be respected. These people will not have the incentive to manage our wildlife if they have to face the continuing harassment of court injunctions, confrontation, and political interference after decisions have been made. This will

only drive some of our best wildlife managers away from the Service, leaving wildlife management to the whims of pressure groups and the courts. If this were to occur, the taxpayers and the government, no matter who is there, will finally throw up their hands and wildlife will suffer irreparable damage.

Far more work has to be done to tell people about wildlife management activities before they are undertaken--through seminars, hearings, and other public forums. If this is not done, people in areas like the Queen Charlotte Islands feel left out. This information should be in the hands of the local conservation officer and biologist up to a year prior to implementation of the proposed program, as they are mostly extremely dedicated people and talk to nearly all the people in the area. I am most impressed with the staff on the Queen Charlotte Islands, who, like others in the rural areas, devote far more hours to their job than the time required by any union contract with the government. Most of the frustration in areas such as the Queen Charlotte Islands is due to the fact that most of the resources of the area (e.g., timber, minerals, etc.) are sent elsewhere for processing. The resistance to a harvest of falcons partly stems from this frustration.

Nothing was presented during the hearings that would indicate that a careful, limited harvest would harm the Peale's peregrine falcons any more than any other animal or bird harvested in the past. As seen in the population collapse because of the use of DDT and Aldrin, it is clear that the population can bounce back if there is sufficient food. In this case, the seabird downturn is the missing link--a mystery to which we have yet to find the answer. However, the decision on when to harvest must be left in the hands of the wildlife manager, who would undertake this in full consultation with local government in the area involved. The last count was done in 1986 and one should be undertaken again this year to see if the downward trend has reversed. If a reversal has occurred, then a very limited harvest of five to ten birds could take place for captive purebred breeding purposes. Ideally, this should be done on the Queen Charlotte Islands to ensure that a pure Peale's peregrine falcon population is maintained. Each bird captured should not only be banded and registered but also tattooed. The offspring from these birds could be obtained by other breeders to improve their gene pool. Artificial insemination, which is now in limited use, will become common practice. Hopefully, the numbers of wild birds will increase and what we see today in

the reduced numbers will prove to be only a normal down cycle, similar to what we see from time to time in the grouse, duck, rabbit, lynx, fox, and marten populations. If this is so, then further limited permits could be granted when population levels have recovered. Those who raise pure Peale's peregrine falcons in captivity should be willing to release at least one quarter to one half of the offspring for colonizing areas where the birds have disappeared, with due compensation and as requested by government.

I am quite sure that most breeders would be only too happy to cooperate in such an undertaking as they have in the U.S.

On the Queen Charlotte Islands we have several things to consider. South Moresby, which is to be made into a National Park, has 34 out of the total 57 nests. Langara Island has four nests and other nests are in ecological reserves. This leaves approximately ten nests on West Graham Island, where a possible harvest of five to ten young birds could be taken if the population starts to increase. This must be done under the supervision of wildlife managers from the area.

Cyril M Shelford.

Cyril Shelford, Commissioner
Committee of Inquiry on Falcons

LIST OF RECOMMENDATIONS

1. The government and academic organizations involved in research, monitoring and management of the falcon's ecosystem increase the level of liaison and cooperation in environmental management.

2. The Minister of Environment and Parks should issue a challenge and invitation to experts from a wide range of disciplines and jurisdictions to address their research efforts towards, and attend a 1989 conference on the ecosystem of the Peale's peregrine falcon.

3. The Wildlife Branch should continue to share information about the location of seabird colonies with forestry operators and the Ministry of Forests and Lands.

4. Where logging plans are in areas potentially sensitive for seabirds the operator, Ministry of Forests and Lands and Ministry of Environment and Parks should determine appropriate harvesting practices.

5. The study of predatory mammals, commissioned by the Wildlife Branch, should be supplemented with local knowledge of Queen Charlotte Island residents, and completed as soon as possible.

6. Experimental and well-monitored eradication programs for rats and raccoons should be initiated on specific affected seabird colonies.

7. The Wildlife Branch encourage the Canadian Wildlife Service to work with the Departments of Fisheries and Oceans, and Transport and local commercial fishing operators to complete an assessment of the impacts of commercial fishing on seabird populations and implement appropriate measures to remedy or mitigate these problems.

8. Wildlife Branch initiate work with other government agencies and researchers to identify and monitor toxic substances in the falcon's ecosystem, understand their sources and impacts, and remedy any problems.

9. The Federal and Provincial governments devote additional funds to identify and reduce the presence of toxic chemicals in the environment.

10. Wildlife Branch work with other government agencies and local interests to define sensitive areas and seasons for falcons and seabirds, understand the possible impacts of recreation and implement management measures to remedy or mitigate problems.

11. An environmental impact assessment should be prepared for the Langara area in advance of approving recreational facilities and access to this area.

12. Wildlife Branch ensure that the appropriate government agencies have rigorous operating regimes and emergency response measures in place before allowing offshore hydrocarbon exploration.

13. Oil tanker traffic must be confined to routes which minimize the risk and consequences of an accidental spill and effective emergency response measures must be in place.

14. Permanent solid ring leg bands and/or tattoos must be applied to wild caught Peale's peregrine falcons before these birds are removed from the capture area (e.g., the Queen Charlotte Islands).

15. In addition to the permanent solid ring leg bands, attached to all captive bred raptors within two weeks of hatching, purebred captive bred raptors should also be tattooed.

16. Wildlife Branch should review the annual renewal of permits with consideration of a permit for the life of the raptor.

17. Permits should include information identifying the subspecies of raptor.

18. Wildlife Branch amend the eligibility requirements for capture and possession permits to include previous unsatisfactory performance as raptor permitees, and criminal convictions related to raptors as precluding eligibility for raptor permits.

19. Wildlife Branch should review the policy whereby residents must be qualified for possession permits for Class 1 birds, while similar requirements are not applicable for birds exported from the Province.

20. Rigorous regulation of purebred captive breeding operations is required to maintain the principles of pedigree and registration and pure blood lines. Captive breeding operations should be prepared to provide this information at the request of the Wildlife Branch.

21. Wildlife Branch should ensure a geneticist is available to direct and consult on captive purebred raptor breeding program(s).

22. Wildlife Branch should consider establishing categories of captive breeding operations to differentiate recreational from purebred operations.

23. Wildlife Branch should undertake a problem analysis and adopt appropriate measures which ensure the genetic integrity of wild peregrine falcon populations.

24. Birds flown for falconry should be equipped with bells to identify them as captive birds, and local conservation officers and SPCA should be advised immediately of escaped falcons.

25. Wildlife Branch should undertake research to identify whether the various populations of Peale's peregrine falcons in British Columbia are genetically or ecologically distinctive and therefore require particular management measures.

26. No falcons may be deliberately released to the wild without written permission from the Wildlife Branch.

27. Wildlife Branch prepare written standards describing the accommodation and feeding of captive falcons, and undertake inspections of captive facilities to ensure these standards are maintained.

28. No harvest occur in 1988 pending the findings of inventories of the Peale's peregrine falcon on the Queen Charlotte Islands and the synthesis of additional information about the falcon's ecosystem. It is also suggested that the Wildlife Branch consider population surveys in the rest of the falcon's range.

29. When the falcon population surveys demonstrate a reversal in the population decline, a total harvest of five to ten birds may be considered. This harvest could occur in a single year or be rationed over a period of years, at the discretion of the Wildlife Branch. Further small scale harvests could be considered when falcon populations have returned to historic levels.

30. Wildlife Branch should continue to liaise with officials in Alaska and other jurisdictions on regulations and management of falcons and coordinate decisions about local populations of falcons for the well-being of falcons throughout their range.

31. Wildlife Branch should review the lottery system used to allocate capture permits, with a view to ensuring birds are allocated in a way which would facilitate purebred captive breeding efforts.

32. Given the limited number of falcons which may be available for harvest, "captive breeding" must be the priority use in allocating capture permits for Peale's peregrine falcons. Offspring of these birds would then be available for other permitted uses.

33. Wildlife Branch should only consider a harvest of wild Peale's peregrine falcons in B.C. if it is satisfied that there are no feasible alternative sources of the birds.

34. Wildlife Branch should review the fees for permits and ensure these in some way reflect the commercial value of the birds and that the fees paid can contribute to research, and enforcement efforts on behalf of the Peale's peregrine falcons.

35. Wildlife Branch undertake a situation analysis and public summary discussing the range of options to satisfy the requirements for captive purebred breeding of Peale's peregrine falcons.

36. In capturing wild chicks, a minimum of two chicks must be left in each nest.

37. Individuals possessing capture permits, or persons harvesting on their behalf should present themselves, in person, to local conservation officers in advance of capture efforts.

38. Representatives of the Ministry of Environment and Parks must personally supervise capture efforts.

39. During nest visits, permanent telescope-readable leg bands should be applied to all chicks remaining in the nest.

40. Possession permits should include a provision that the Province can reclaim up to 50% of the captive purebred birds as required for re-introductions to the wild, and provide appropriate compensation.

41. The following areas are to be excluded from harvesting activities:
Parks: South Moresby National Park;
Ecological Reserves: Hippa, Langara, and Frederick (soon to be declared);
Research areas: Langara Island and a buffer zone along the northwest coast of Graham Island (Wayne Nelson); Reef Island (CWS Study area).

42. Wildlife Branch should review all possible areas in British Columbia for harvesting.

43. Wildlife Branch encourage those interested in purebred captive breeding to undertake a feasibility study for a purebred captive breeding facility for Peale's peregrine falcons located on the Queen Charlotte Islands.

44. Wildlife Branch review the penalties associated with illegal removal or possession of Peale's peregrine falcons relative to the market value of the birds.

45. Queen Charlotte Islanders should be recognized for their role in policing falcon nesting sites, and encouraged to continue these efforts. Additionally, local residents should be informed of the timing of any harvests so they can continue to be effective in their vigilance.

46. Substantial rewards should be established for information leading to successful convictions for harassment, or the illegal removal or possession of falcon adults, chicks or eggs.

47. Population surveys of Peale's peregrine falcons be conducted by boat at two-year intervals, beginning in 1988, to establish a baseline, and thereafter at five-year intervals.

48. Wildlife Branch consider scheduling the population surveys of Peale's peregrine falcons to coincide with any harvesting to realize some economies.

49. Wildlife Branch keep COSEWIC (Committee on the Status of Endangered Wildlife in Canada) advised of the results of population surveys on the Peale's peregrine falcon in British Columbia.

50. Wildlife Branch strengthen its ties with and integrate its management with these other agencies (government, academic, and special interest groups) with a goal of sharing information and jointly participating in research and management efforts.

51. Government of British Columbia co-ordinate joint international research efforts, including those of the governments of Canada, U.S. and B.C., along with the local and provincial museums, universities, and South Moresby National Park through a facility on the Queen Charlotte Islands such as the Queen Charlotte Islands Museum.

52. Wildlife Branch and the falconers increase their public information activities, including more public appearances by falconers (especially in schools and country fairs), and an annual report on statistics associated with the wild and captive populations of Peale's peregrine falcons.

53. Wildlife Branch continue to develop closer liaison with local residents in wildlife management decisions.

54. Wildlife Branch review the adequacy of its current complement of regional staff in the northwest area of the Province.

INTRODUCTION

Appointment of the Committee

The Honourable Bruce Strachan, British Columbia Minister of Environment and Parks, appointed the Committee of Inquiry on Falcons on February 10, 1988, to examine the management of the Peale's peregrine falcon on the Queen Charlotte Islands. The Committee of Inquiry was asked to submit its recommendations in a written report to the Minister by April 15, 1988.

Mr. Cyril Shelford was appointed as the Commissioner of the Committee of Inquiry. Now an independent consultant based in Victoria, Cyril Shelford has lived most of his life in northwestern British Columbia as a rancher and guide and still has both family and friends in the area. Mr. Shelford served as MLA for Omineca from 1952 to 1972 and again from 1975 to 1979; during this time he was Minister of Agriculture. An enthusiastic outdoorsman and naturalist, Mr. Shelford has been active with the B.C. Wildlife Federation, Ducks Unlimited, and the Canadian Wildlife Federation.

Committee Objectives

The Ministry of Environment and Parks specified that the Committee:

(a) review management of the peregrine population on the Queen Charlotte Islands;

(b) examine the impact of periodical or annual harvest on the long-term viability of the falcon population; and

(c) prepare recommendations on the administration and management steps necessary to ensure the peregrine falcon population is maintained in perpetuity.

Report Organization and Contents

The remainder of this report presents detailed discussion and recommendations on: the Queen Charlotte Islands environment; management of captive Peale's peregrine falcon populations; harvest; and government management. A number of appendices provide background information.

BACKGROUND

Falcons in British Columbia

There are five members of the falcon family in British Columbia, including two subspecies of peregrine falcons, the Anatum and the Peale's. The falcons and other raptors are managed under the Wildlife Act by the Wildlife Branch of the Ministry of Environment and Parks. Prior to 1971, birds of prey were considered "vermin" and often shot on sight. The inclusion of raptors within the Wildlife Act, was championed by falconers and naturalists.

The British Columbia population of Peale's peregrine falcons numbers about 100 pairs, about two-thirds of which nest on the Queen Charlotte Islands, with the balance distributed along the mainland coastline and the northwestern part of Vancouver Island. Alaska, with about 500 pairs, is the centre of the population for these birds.

As top predator in its food web, and being at the southern edge of its range, the Peale's peregrine falcon population has probably never been numerous in British Columbia.

During World War II, Peale's peregrine falcons were shot in order to protect carrier pigeons used by the military. In the 1950's and 1960's, DDT had disastrous impacts on raptors throughout North America, although the Peale's peregrine falcons were somewhat isolated from these impacts. However, the availability of prey species has affected Peale's peregrine falcon populations.

Peale's peregrine falcons have been used in falconry for decades, and harvests of wild chicks were conducted annually through the 1950's and 1960's. Only very limited harvests have occurred since 1972.

PUBLIC REVIEW PROCESS

Summary

The Inquiry generated information in a number of ways:

* A letter mailed directly to organizations and individuals known to be interested in wildlife issues and falcon management, encouraging their participation.

* Advertising announcing the timing and location of public hearings, which appeared in the Vancouver, and Queen Charlotte Islands newspapers.

* Telephone contact with falcon management experts in a number of areas, including: British Columbia, Alberta, Ottawa, Yukon, Alaska, and Washington state.

* Review of scientific and management information on falcons.

* A series of public hearings in Vancouver (March 15, 1988), Queen Charlotte City (March 19, 1988), and Masset (March 20, 1988).

* Review of written correspondence and briefs.

The following sections contain details about these activities.

Information Letters

The Inquiry distributed letters to over 200 organizations and individuals, including individuals holding raptor permits, environmental and naturalist groups, as well as local organizations, government officials, media and individuals on the Queen Charlotte Islands. The letter outlined the mandate and schedule for the public review and encouraged participation at the hearings or in written submissions.

Public Hearings

The Inquiry scheduled informal public hearings to encourage individual input and discussion about falcon management. The interest and thoughtful presentations provided a valuable source of input and understanding of the issues. In total, over 200 people attended the hearings, many of whom made presentations or participated in discussions. While the Vancouver hearings were dominated by major interest groups, many local residents and organizations participated in hearings held on the Queen Charlotte Islands.

Written Submissions

The Inquiry received written submissions through correspondence before and following the hearings, and as supporting documents for presentations made during the hearings.

Other Discussions

A number of meetings and discussions contributed to the information base, including discussions with wildlife and enforcement officials of the Ministry of Environment and Parks in Victoria and the Queen Charlotte Islands as well as in other jurisdictions; discussions with the Canadian Wildlife Service; and informal conversations with naturalists, falconers, and Queen Charlotte Islands residents.

DISCUSSION AND RECOMMENDATIONS

This section of the report outlines the problems, concerns and opportunities for falcon management. A discussion of these issues and the associated recommendations are presented in four parts:

1. Environmental Management;
2. Management in Captivity;
3. Harvest; and
4. Government Management.

1.0 ENVIRONMENTAL MANAGEMENT

Information presented to the Commission indicated that current falcon populations are being suppressed below historical levels as a result of conditions in the falcon's ecosystem.

A key factor in this equation is the dramatic decline in size and distribution of seabird populations in the Queen Charlotte Islands area. What were once described as millions of birds are now counted in tens of thousands and only a fraction of historical seabird colonies are still occupied. Resolving these seabird problems should contribute to the well-being and recovery of the falcons.

The falcon's ecosystem may be affected by any combination of a number of factors both natural and human, including:

1. environmental change;
2. forest harvesting;
3. predatory mammals;
4. commercial fishing;
5. toxic chemicals;
6. recreation; and
7. offshore hydrocarbon activities.

1.1 Environmental Change

Environmental change such as shifts in ocean currents and water temperature (e.g., El Nino), may have affected marine productivity. This could affect the size, availability and distribution of food in the lower levels of the falcon's food web, which, in turn, affects the populations, behaviour and reproductive success at higher levels in the ecosystem.

RECOMMENDATIONS:

1. The government and academic organizations involved in research, monitoring and management of the falcon's ecosystem increase the level of liaison and cooperation in environmental management.

2. The Minister of Environment and Parks should issue a challenge and invitation to experts from a wide range of disciplines and jurisdictions to address their research efforts towards, and attend a 1989 conference on the ecosystem of the Peale's peregrine falcon.

1.2 Forest Harvesting

Forest harvesting could affect seabird nesting colonies, where logging, access roads, landslides, or logging slash disturbs or destroys seabird nesting colonies. Although there have been few examples to date, the potential problem needs to be addressed and prevented. The recent scientific discovery that marbled murrelets nest in trees suggests there may be other potential impacts associated with forestry.

RECOMMENDATIONS:

3. The Wildlife Branch should continue to share information about the location of seabird colonies with forestry operators and the Ministry of Forests and Lands.

4. Where logging plans are in areas potentially sensitive for seabirds the operator, Ministry of Forests and Lands and Ministry of Environment and Parks should determine appropriate harvesting practices.

1.3 Predatory Mammals

Predatory mammals, which include rats, raccoons, martens, and feral cats, could devastate seabird colonies by preying on eggs, chicks or adults, and could also threaten falcon eggs and nestlings. Rats and raccoons are accused of destroying specific seabird colonies, through predation and may even trigger a colonial response among the seabirds to abandon the nesting site. Locally, there is strong support for aggressive control programs.

RECOMMENDATIONS:

5. The study of predatory mammals, commissioned by the Wildlife Branch, should be supplemented with local knowledge of Queen Charlotte Island residents, and completed as soon as possible.

6. Experimental and well-monitored eradication programs for rats and raccoons should be initiated on specific affected seabird colonies.

1.4 Commercial Fishing

Commercial fishing can severely impact seabirds. Incidental catches of diving seabirds in the nearshore drift and gillnet fisheries and the large monofilament drift nets used in offshore waters are major concerns, especially if this occurs in the feeding, or staging areas of seabirds. In addition, the lights used for night fishing and anchor lights are known to have contributed to the accidental death of ancient murrelets and other nocturnal seabirds which are attracted to light. This can be an acute problem where night fishing or anchorages are in the lines of flight for the nocturnal seabirds.

RECOMMENDATIONS:

7. The Wildlife Branch encourage the Canadian Wildlife Service to work with the Departments of Fisheries and Oceans, and Transport and local commercial fishing operators to complete an assessment of the impacts of commercial fishing on seabird populations and implement appropriate measures to remedy or mitigate these problems.

1.5 Toxic Chemicals

Toxic chemicals, which include pesticides, are present throughout the falcon's food web from plankton through seabird and falcon eggs. Some of these substances resist breakdown and bioaccumulate in the food web, so the falcon as top predator, is especially vulnerable. Even sub-lethal levels may affect the behaviour or reproductive success at any level in the ecosystem.

Runoff of pesticides used in forestry and transport by ocean currents from Asia are suggested sources in the Queen Charlotte Islands area. The migration of falcons and their seabird prey may increase their exposure to toxic chemicals used elsewhere. In addition, pesticides used to control starlings and pigeons were suggested as negatively affecting falcons found near urban areas (e.g., wintering populations, or birds used in or escaped from falconry).

RECOMMENDATIONS:

8. Wildlife Branch initiate work with other government agencies and researchers to identify and monitor toxic substances in the falcon's ecosystem, understand their sources and impacts, and remedy any problems.

9. The Federal and Provincial governments devote additional funds to identify and reduce the presence of toxic chemicals in the environment.

1.6 Recreation Access

Recreation access may disturb falcons and seabirds. This may lead to falcons abandoning their nests, while beach campfires and pedestrian traffic through nesting colonies or disturbance at feeding or staging areas can adversely affect seabirds. At Langara Island, the increasing number of recreational anglers and motor boats, float plane traffic and proposals for fishing camps and a landing strip could disturb falcons and the seabirds. The expectation of increased outdoor recreation activities associated with South Moresby National Park, if not carefully controlled, could have undesirable environmental impacts.

RECOMMENDATIONS:

10. Wildlife Branch work with other government agencies and local interests to define sensitive areas and seasons for falcons and seabirds, understand the possible impacts of recreation and implement management measures to remedy or mitigate problems.

11. An environmental impact assessment should be prepared for the Langara area in advance of approving recreational facilities and access to this area.

1.7 Offshore Hydrocarbon Activities

A drilling rig blowout or oil tanker spill could affect large portions of the Queen Charlotte Islands' coastal environment. Seabirds would be especially vulnerable and would likely experience large losses, which would depress falcon populations. Environmental rehabilitation would take a number of years and may even require reintroductions of some wildlife species. Although captive populations of pure Peale's peregrine falcons may supplement any re-introductions, Alaska is a more appropriate source for these birds.

RECOMMENDATIONS:

12. Wildlife Branch ensure that the appropriate government agencies have rigorous operating regimes and emergency response measures in place before allowing offshore hydrocarbon exploration.

13. Oil tanker traffic must be confined to routes which minimize the risk and consequences of an accidental spill and effective emergency response measures must be in place.

2.0 MANAGEMENT IN CAPTIVITY

2.1 Registration

Present regulations specify that solid ring leg bands are necessary on captive bred falcons. In addition, the current system requires that permits are renewed annually. Discussions on this registration system suggest it may be inadequate.

RECOMMENDATIONS:

14. Permanent solid ring leg bands and/or tattoos must be applied to wild caught Peale's peregrine falcons before these birds are removed from the capture area (e.g., the Queen Charlotte Islands).

15. In addition to the permanent solid ring leg bands, attached to all captive raptors birds within two weeks of hatching, purebred captive bred raptors should also be tattooed.

16. Wildlife Branch should review the annual renewal of permits with consideration of a permit for the life of the raptor.

17. Permits should include information identifying the subspecies of raptor.

18. Wildlife Branch amend the eligibility requirements for capture and possession permits to include previous unsatisfactory performance as raptor permitees, and criminal convictions related to raptors as precluding eligibility for raptor permits.

19. Wildlife Branch should review the policy whereby residents must be qualified for possession permits for Class 1 birds, while similar requirements are not applicable for birds exported from the Province.

2.2 Captive Breeding

Wildlife Branch records show that 212 Peale's peregrine falcons were taken from the Queen Charlotte Islands from 1952 through 1987, only two of which could still be of breeding age (see Appendix 8). In addition, two chicks were taken from the mid coast area in the mid 1980's.

The success of captive breeding efforts coincided with decreased harvesting in the early 1970's, and more recent harvests have been smaller in scale and sporadic. At present, there is only one breeder of pure Peale's peregrine falcons in British Columbia, and most of the progeny of earlier captures are hybrids.

A composite of captive breeding information provided to the Commission indicates a small captive "seed" population of ten birds can produce a popu-

lation of many hundreds of birds within three years (where 50% of captive falcons are productive parents [naturally or artificially] and produce ten to sixteen chicks annually for about twelve years, starting at one year of age).

RECOMMENDATIONS:

20. Rigorous regulation of purebred captive breeding operations is required to maintain the principles of pedigree and registration and pure blood lines. Captive breeding operations should be prepared to provide this information at the request of the Wildlife Branch.

21. Wildlife Branch should ensure a geneticist is available to direct and consult on captive purebred raptor breeding program(s).

22. Wildlife Branch should consider establishing categories of captive breeding operations to differentiate recreational from purebred operations.

2.3 Captive Escapes/Releases

Falconers report that up to half of their falcons escape while they are being flown. In addition, some falcons are released to the wild at the end of their hunting career. This can have some important biological implications, and the maintenance of wildlife species diversity is a cornerstone of wildlife management in British Columbia.

Escaped and released birds generally stay in the area where they gained freedom, and may be the origin of the Gulf Island falcon populations.

Falcons of the various species and subspecies can interbreed. This could be of particular concern with the "endangered" Anatum peregrine, whose genetic material could be diluted and swamped through interbreeding with released or escaped falcons of other or mixed breeds. A similar situation could occur if "exotic" species of falcons were released within the range of the Peale's peregrine falcon population.

RECOMMENDATIONS:

23. Wildlife Branch should undertake a problem analysis and adopt appropriate measures which ensure the genetic integrity of wild peregrine falcon populations.

24. Birds flown for falconry should be equipped with bells to identify them as captive birds, and local conservation officers and SPCA should be advised immediately of escaped falcons.

25. Wildlife Branch should undertake research to identify whether the various populations of Peale's peregrine falcons in British Columbia are genetically or ecologically distinctive and therefore require particular management measures.

26. No falcons may be deliberately released to the wild without written permission from the Wildlife Branch.

2.4 Captive Facilities

There were some concerns expressed about the conditions under which falcons are kept in captivity. It is in the best interests of the birds and those keeping falcons in captivity to standardize some basic requirements which must be satisfied.

RECOMMENDATIONS:

27. Wildlife Branch prepare written standards describing the accommodation and feeding of captive falcons, and undertake inspections of captive facilities to ensure these standards are maintained.

3.0 HARVEST

3.1 Harvest

Biologically, it does seem possible to allow a limited harvest of falcons, without having a negative effect on the maintenance of falcon populations in perpetuity. However, it is clear that there is considerable public opposition to the capture of wild falcon chicks for recreational and commercial purposes. Given the current declining populations of falcons, and the requirement for additional research on the falcon's ecosystem, it is impossible to consider a harvest until this decline reverses.

RECOMMENDATIONS:

28. No harvest occur in 1988 pending the findings of inventories of the Peale's peregrine falcon on the Queen Charlotte Islands and the synthesis of additional information about the falcon's ecosystem. It is also suggested that the Wildlife Branch consider population surveys in the rest of the falcon's range.

29. When the falcon population surveys demonstrate a reversal in the population decline, a total harvest of five to ten birds may be considered. This harvest could occur in a single year or be rationed over a period of years, at the discretion of the Wildlife Branch. Further small scale harvests could be considered when falcon populations have returned to historic levels.

30. Wildlife Branch should continue to liaise with officials in Alaska and other jurisdictions on regulations and management of falcons and coordinate decisions about local populations of falcons for the well-being of falcons throughout their range.

31. Wildlife Branch should review the lottery system used to allocate capture permits, with a view to ensuring birds are allocated in a way which would facilitate purebred captive breeding efforts.

32. Given the limited number of falcons which may be available for harvest, "captive breeding" must be the priority use in allocating capture permits for Peale's peregrine falcons. Offspring of these birds would then be available for other permitted uses.

33. Wildlife Branch should only consider a harvest of wild Peale's peregrine falcons in B.C. if it is satisfied that there are no feasible alternative sources of the birds.

34. Wildlife Branch should review the fees for permits and ensure these in some way reflect the commercial value of the birds and that the fees paid can contribute to research, and enforcement efforts on behalf of the Peale's peregrine falcons.

3.2 Harvest Logistics

There appear to be several ways to satisfy requirements for a captive population of purebred Peale's peregrine falcons, including:

(a) taking the first clutch of eggs from wild falcons and incubating them--so the wild birds lay another clutch;

(b) taking migrating brown birds and encouraging them to breed in captivity, and releasing them to the wild after one or two years;

(c) taking some wild chicks from the nest;

(d) taking adults from the floating population; and

(e) availability of wild birds from Alaska or captive birds from outside the Province.

RECOMMENDATIONS:

35. Wildlife Branch undertake a situation analysis and public summary discussing the range of options to satisfy the requirements for captive purebred breeding of Peale's peregrine falcons.

36. In capturing wild chicks, a minimum of two chicks must be left in each nest.

37. Individuals possessing capture permits, or persons harvesting on their behalf should present themselves, in person, to local conservation officers in advance of capture efforts.

38. Representatives of the Ministry of Environment and Parks must personally supervise capture efforts.

39. During nest visits, permanent telescope-readable leg bands should be applied to all chicks remaining in the nest.

40. Possession permits should include a provision that the Province can reclaim up to 50% of the captive purebred birds as required for reintroductions to the wild, and provide appropriate compensation.

3.3 Harvest Area

It appears that a number of areas should be excluded from harvesting, in recognition of their ecological or social importance. On the Queen Charlotte Islands, only a portion of the west coast of Graham Island could be considered for harvesting.

RECOMMENDATIONS:

41. The following areas are to be excluded from harvesting activities:
    Parks: South Moresby National Park;
    Ecological Reserves: Hippa, Langara, and Frederick (soon to be declared);
    Research areas: Langara Island and a buffer zone along the northwest coast of Graham Island (Wayne Nelson); Reef Island (CWS Study area).

42. Wildlife Branch should review all possible areas in British Columbia for harvesting.

3.4 Local Benefits

While the recreation and potentially-commercial benefits for falconers are clear, many participants raised questions about the distribution of benefits to the rest of society. On the Queen Charlotte Islands, there was resentment about the possible loss of potential commercial opportunities associated with the Peale's peregrine falcons.

A captive breeding facility on the Queen Charlotte Islands which also served as a research and interpretive facility on falcons should be considered. Such a facility could provide falcons for falconry, science and education and have local employment and economic benefits. Revenues realized could be reinvested in the facility and directed to research and management of the falcons. This operation would complement plans for facilities associated with South Moresby National Park.

RECOMMENDATIONS:

43. Wildlife Branch encourage those interested in purebred captive breeding to undertake a feasibility study for a purebred captive breeding facility for Peale's peregrine falcons located on the Queen Charlotte Islands.

4.0 GOVERNMENT MANAGEMENT

4.1 Poaching

While there were serious concerns about poaching, convictions and investigations do not confirm a significant recent problem on the Queen Charlotte Islands. However, it does seem reasonable to increase the penalties associated with poaching and the possession of illegally taken birds to reflect the market value of the individual bird and its captive bred offspring. Individual residents of the Queen Charlotte Islands have actively participated in watching for poachers, in support of enforcement by conservation officers.

RECOMMENDATIONS:

44. Wildlife Branch review the penalties associated with illegal removal or possession of Peale's peregrine falcons relative to the market value of the birds.

45. Queen Charlotte Islanders should be recognized for their role in policing falcon nesting sites, and encouraged to continue these efforts. Additionally, local residents should be informed of the timing of any harvests so they can continue to be effective in their vigilance.

46. Substantial rewards should be established for information leading to successful convictions for harassment, or the illegal removal or possession of falcon adults, chicks or eggs.

4.2 Population Surveys

There were numerous criticisms about the adequacy, accuracy, methodology and interpretation of the surveys of falcon populations. It is clear that there are many logistical and environmental difficulties in conducting the inventory.

RECOMMENDATIONS:

47. Population surveys of Peale's peregrine falcons be conducted by boat at two-year intervals, beginning in 1988, to establish a baseline, and thereafter at five-year intervals.

48. Wildlife Branch consider scheduling the population surveys of Peale's peregrine falcons to coincide with any harvesting to realize some economies.

49. Wildlife Branch keep COSEWIC (Committee on the Status of Endangered Wildlife in Canada) advised of the results of population surveys on the Peale's peregrine falcon in British Columbia.

4.3 Intergovernmental Cooperation

It is clear that there are a number of agencies, disciplines, interests and jurisdictions concerned with the falcon's ecosystem, including:

* the B.C. and Alaska wildlife agencies for falcon nesting areas;
* the B.C., Alaska, Washington, Oregon, and California wildlife agencies for falcon wintering areas;
* the Canadian Wildlife Service and their U.S. counterparts for seabirds;
* the Department of Fisheries and Oceans for incidental seabird mortality; and
* Parks Canada for management regulations concerning South Moresby Park.

RECOMMENDATIONS:

50. Wildlife Branch strengthen its ties with and integrate its management with these other agencies (government, academic, and special interest groups) with a goal of sharing information and jointly participating in research and management efforts.

51. Government of British Columbia co-ordinate joint international research efforts, including those of the governments of Canada, U.S. and B.C., along with the local and provincial museums, universities, and South Moresby National Park through a facility on the Queen Charlotte Islands such as the Queen Charlotte Islands Museum.

4.4 General

There were a number of general comments about environmental issues. Many of these reflect frustration among local residents about a lack of influence in decisions which affect them. The residents of the Queen Charlotte Islands demonstrated a strong commitment to the well-being of their environment, and have considerable knowledge and understanding to contribute to decision-making. In terms of government organization, they wanted the government to demonstrate a commitment to environmental protection through increased staff and budgets for environmental management, and an increased emphasis on non-consumptive uses of wildlife.

RECOMMENDATIONS:

52. Wildlife Branch and the falconers increase their public information activities, including more public appearances by falconers (especially in schools and country fairs), and an annual report on statistics associated with the wild and captive populations of Peale's peregrine falcons.

53. Wildlife Branch continue to develop closer liaison with local residents in wildlife management decisions.

54. Wildlife Branch review the adequacy of its current complement of regional staff in the northwest area of the Province.

APPENDIX 1

Inquiry Terms of Reference

Inquiry Procedures

Province of
British Columbia

OFFICE OF THE MINISTER

Ministry of
Environment
and Parks

Parliament Buildings
Victoria
British Columbia
V8V 1X4

ENVIRONMENT MANAGEMENT ACT

APPOINTMENT OF COMMITTEE OF INQUIRY

Pursuant to Section 7(1) of the Environment Management Act, I hereby appoint Mr. Cyril Shelford as a committee of one to inquire into the management of the Peale's peregrine falcon on the Queen Charlotte Islands.

Pursuant to Section 7(2) of the Environment Management Act, the terms of reference and the guidelines of the Committee of Inquiry are as follows:

1) To review management of the peregrine population on the Queen Charlotte Islands. In particular, the Committee will examine the impact of periodical or annual harvest on the long-term viability of the falcon population. In addition, the Committee will prepare recommendations on the administration and management steps necessary to ensure the peregrine falcon population is maintained in perpetuity.

2) To solicit input on the above matters from residents of the Queen Charlotte Islands, those wishing to capture falcons, and the general public.

3) To present its recommendations in a written report to the Minister of Environment and Parks on or before April 15, 1988.

Bruce Strachan
Minister of Environment
and Parks

Dated at Victoria, B. C., this 10th day of February 1988.

C & B CONSULTING SERVICE LTD.

Telephone (604) 479-6827
or (604) 595-7100

4210 Kincaid Street
Victoria, B.C. V8X 4K6

PUBLIC INQUIRY ON FALCONS

INFORMATION FOR PARTICIPANTS

Your ideas and views are important to the success of this public inquiry and its recommendations.

You can participate through written submissions and/or oral presentations at the public hearings.

Written Submissions

(1) All written submissions, briefs and letters should be received by the Commissioner by March 31, 1988.

Public Hearings

(2) The public hearings will be informal and flexible to allow for full public participation.

(3) Careful written notes will be made at the hearings.

(4) Written briefs supporting oral presentations should be submitted in advance of the hearings.

(5) Presentations at the hearings can be scheduled in advance through the Commissioner's office, or on a "first-come-first-served" basis at the hearings.

APPENDIX 2

Letter of Invitation

C & B CONSULTING SERVICE LTD.

Telephone (604) 479-6827
or (604) 595-7100

4210 Kincaid Street
Victoria, B.C. V8X 4K6

February 19, 1988

Dear

This letter is your personal invitation to participate in a public inquiry about peregrine falcons on the Queen Charlotte Islands.

The Minister of Environment and Parks has asked me to review all aspects of the management of this falcon population. I will prepare recommendations about the administration and management of the falcons and examine the impact of harvesting the falcon population.

I encourage you to participate in this public inquiry. Your ideas and views are important.

You can let me know what you think through letters, or written briefs, or presentations at a public hearing. The dates and locations for hearings are scheduled as follows:

VANCOUVER	Tuesday, March 15, 1988 Robson Square Media Center	1:00 p.m. and 7:00 p.m.
QUEEN CHARLOTTE CITY	Saturday, March 19, 1988 Community Hall	9:00 a.m. and 2:00 p.m.
MASSET	Sunday, March 20, 1988 Community Hall	1:00 p.m. and 7:00 p.m.

I look forward to reviewing your written submissions and meeting you at the hearings.

Yours sincerely,

Cyril Shelford

Attachments: News Release
Terms of Reference

APPENDIX 3

Promotional Activities

PUBLIC INQUIRY ON FALCONS

Cyril Shelford is conducting, on behalf of the Minister of Environment and Parks, a public inquiry into management of Peale's peregrine falcons on the Queen Charlotte Islands. As part of this inquiry, public hearings will be held in:

Vancouver - Robson Square Media Centre
Tuesday, March 15 - 1 p.m. & 7 p.m.

Queen Charlotte City - Community Hall
Saturday, March 19 - 9 a.m. & 2 p.m.

Masset - Community Hall, Sunday, March 20 - 1 p.m. & 7 p.m.

Written briefs and oral submissions from individuals and organizations interested in peregrine falcons are welcome. Submissions can be made either at a hearing, by a written brief, or by a letter addressed to:

Mr. Cyril Shelford, Public Inquiry On Falcons,
4210 Kincaid Street, Victoria, B.C. V8X 4K6 595-7100

British Columbia Ministry of Environment and Parks

News Release

RELEASED BY: Minister's Office
387-5202
February 12, 1988

FALCON INQUIRY ANNOUNCED

Environment and Parks Minister Bruce Strachan today announced an independent public inquiry into management of Peale's peregine falcons on the Queen Charlotte Islands.

Cyril Shelford, former B.C. agriculture minister and now a consultant living in Victoria, will conduct the inquiry.

"There is considerable interest amongst British Columbians in our falcon population," said Strachan. "Some would see us use some of the birds for breeding and falconry, while others wish to leave the birds entirely in the wild.

"Mr. Shelford's general mandate will be to review all aspects of the management of the peregrine population on the Queen Charlotte Islands and to prepare recommendations on the steps necessary to ensure the peregrine population is maintained in perpetuity."

Shelford has also been asked to examine the effect of a periodical or annual harvest on the falcon population in the Queen Charlottes.

Terms of reference for the inquiry call for Shelford to solicit submissions from residents of the Queen Charlottes, those wishing to capture falcons, and the general public.

.../2

Shelford has been asked to submit his report to the Minister by April 15, 1988.

-30-

Contact:
Ronald Kawalilak
Director, Information Services Branch
Ministry of Environment and Parks
Victoria
(604)387-9422

APPENDIX 4

Inquiry Calendar of Events

February	10	Public Hearing launched
February	12	News Release issued
February	29	Letter of Invitation mailed
March	15	Hearing - Vancouver
March	19	Hearing - Queen Charlotte City
March	20	Hearing - Masset
March	31	Deadline for Written Submissions
April	15	Completed report due

APPENDIX 5

Hearing Participants

Vancouver - Robson Square Media Centre — Tuesday, March 15, 1988

Margo Hearne (Islands Protection Society)
Calvin Sandborn (West Coast Environmental Law Assn.)
Frank Beebe (N.W. Falconers Assn.)
Keith Hodson
Paul George (Western Canada Wilderness Committee)
Sherri Pettigrew (N.W. Wildlife Preservation Society)
George Galicz (B.C. Wildlife Federation)
Joseph Simonyi
Neil Trenholme
Muriel Galicz
John J. LeJeune (Falcon Farms Ltd.)
Ethel Jones (Council of the Haida Nation)
Bill Banting
Andrew Walczewsky
Elizabeth Walker (Sierra Club of Western Canada)
Thom Henley (Rediscovery Society)
Pierre Forand (Q.C.I. Helicopters)
Joe McLaren

Queen Charlotte City - Community Hall — Saturday, March 19, 1988

(Wayne Nelson present)

Bob Long
Trish Gessler (Q.C.I. Museum)
Mary Morris (Kallahin Expeditions)
Peter Schaeffer
John Williams
John Broadhead (Earthlife Canada Foundation)
Keith Hodson
Karl Puls
Kathryn Kelly
Margo Hearne (Islands Protection Society)

Masset - Community Hall Sunday, March 20, 1988

(Wayne Nelson present)

Guujaaw
Charlie Bellis
John Disney
Margo Hearne (Islands Protection Society)
George Galicz (B.C. Wildlife Federation)
James Smith (Islands Protection Society)
Susan Williams
Keith Hodson
Frank Collison
Jenny Nelson
Maureen McNamara (Islands Protection Society)
Mary Wilson
Chief Guaseland (Council of the Haida Nation)
Wilfred Penker
Chief Iljaaws (Council of the Haida Nation)
Lavinia White
Jack Miller

APPENDIX 6

Briefs Received at Hearings

Islands Protection Society
Western Canada Wilderness Committee
Northwest Wildlife Preservation Society
George Galicz
Joe Simonyi
John J. LeJeune
Robert A. Long
Mary Morris
Earthlife Canada Foundation
S.P.C.A. (Queen Charlotte Islands Branch)
Karl Puls
R. Schopter
Mrs. R. Gregory
F.R. Bell

APPENDIX 7

Additional Submissions

Muriel Galicz
Sierra Club of Western Canada
Charles Bellis
Dennis Maynes
George R. Newell
Newton Community Ratepayers Assn. (Gloria Williams)
Islands Protection Society - 291 signature petition
Kathryn Kelly
Susan Murphy
Ted Miller
Dan Miller (MLA Prince Rupert)
Ian Graeme
William Banting
Federation of B.C. Naturalists (G. Allen Poynter)
Richard Wozny
John J. Paterson
Donald Udy
G. Russell
Steve Speich
Vern Byrd
Doug Wilson
Diane Hansen
Earthlife Canada Foundation (John Broadhead)
Vancouver Natural History Society

APPENDIX 8

Authorized Harvests of Peale's Peregrine Falcons from the Queen Charlotte Islands

Year	Birds Taken
1952	5
1953	?
1954	?
1955	18
1956	11
1957	3
1958	5
1959	14
1960	2+ (incomplete)
1961	?
1962	10+ (incomplete)
1963	23
1964	33
1965	11
1966	25
1967	41
1968	?
1969	?
1970	?
1971	?
1972	9
1973-1978	0
1979	2
1980-1987	0

Source: Wildlife Branch, Ministry of Environment and Parks

APPENDIX 9

PEALE'S PEREGRINE FALCONS

The Peale's peregrine falcon (Falco peregrinus pealeii) is one of five species of the falcon family which occur in British Columbia, which includes kestrels, merlins, prairie falcons, gyrfalcons and two subspecies of peregrine falcons, Anatum and Peale's.

The Peale's peregrine falcon breeds in coastal areas from the northern end of Vancouver Island through the Aleutian Islands of Alaska. The Alaskan population is estimated at 500 pairs, with additional pockets on the Queen Charlotte Islands (57 pairs), along the mainland coast (six pairs), and the northern end of Vancouver Island (nine pairs).

British Columbia has the entire Canadian population of Peale's peregrine falcons, and because of the size and distribution of this population, the bird is considered "rare."

The Peale's peregrine falcons have been the subject of considerable public interest in British Columbia. A province-wide vote for a provincial bird yielded over 19,000 votes for the peregrine falcon, which placed it second to the winner, the Steller's Jay, which received about 23,000 votes.

Because of its position as top predator in its food web, and at the southern limit of its nesting range, the Peale's peregrine falcon has probably never been numerous in British Columbia, and is vulnerable to changes in its ecosystem.

Despite debate about the accuracy and interpretation of population surveys conducted over the past three decades, it seems clear that there has been a decline and that current populations are around the lowest levels recorded. Many hearing participants were anxious about the trend and stability of falcon populations, and consequently were reluctant to consider harvest proposals.

Where environmental conditions are favourable, falcon populations maintain themselves at, or quickly recover to, historic levels. The falcon can therefore be used as an indicator of environmental well-being.

The population is made up of the breeding pairs enumerated in population surveys and a floating population of non-breeding adults and subadults. It is suspected that the Peale's peregrine falcons maintain a

relatively large mobile floating population as a species survival strategy in response to their harsh environment.

Biologists consider the population "saturated" (i.e., the size and composition of the falcon population is at a maximum relative to environmental conditions). Since no subadults have begun nesting, the floating population is large enough so adult birds replace breeder mortality. However, the expanding size of nesting territories and infrequent sightings of the distinctively plumage subadult portion of the floating population, combined with other environmental changes, suggest fundamental problems with the falcon's ecosystem.

Although falcons usually lay four eggs, weather, normal breakage during incubation and early chick mortality can reduce the number of fledged chicks. Parental efforts to satisfy the food requirements of their chicks is suspected of weakening parents and increasing their mortality during the subsequent winter.

The Peale's peregrine falcons demonstrate strong preferences for particular prey. Chicks are fed almost exclusively on ancient murrelets, an offshore bird, only available because its nesting period coincides with that of the falcon. It is understood that the size and location of falcon nesting territories indicate the availability of a base population of 15,000 breeding pairs of ancient murrelets, from which 1,000 murrelets are taken by each nesting pair. Therefore, the falcons' reproductive behaviour and success depend on the size and distribution of seabird prey populations.

Falcons found near settled areas of southern British Columbia (winter migrants, captive birds flown by falconers, and escaped/released birds) demonstrate a preference for starlings and pigeons.

Banding returns indicate that some immature Peale's peregrine falcons fledged from Langara Island have migrated as far as California. It is suspected that some adult breeders also migrate, while others guard the nesting territory.

Peale's peregrine falcons experience extremely high mortality rates in the wild, which is part of a natural selection process for the fittest individuals for this harsh environment.

Predators such as rats; raccoons; martens; feral cats; and ravens may be threats to falcon eggs and chicks, as well as Great Horned Owls (on the

mainland coast only). Starvation and accidents during the fledgling period, combined with weather conditions, human harassment, and the migration during the first winter, are the prime causes of the high first year mortality level.

Biological extrapolations from this high mortality rate suggest a harvest of unfledged falcon chicks would have a numerically insignificant impact on the adult breeding population.

APPENDIX 10

Regulations re Capture/Possession of Raptors in British Columbia

Province of British Columbia
Ministry of Environment

PROCEDURE MANUAL

VOLUME	SECTION	SUBSECTION	PAGE
4	7	02.01	1 of 13

SUBJECT

Capture, Possession and Use of Raptorial Birds

This Procedure replaces:

Circular 833, Policy and Regulations for Raptorial Birds in British Columbia, July 1974.

Staff, organizations directly affected:

Wildlife Management staff
Regional Directors
Regional Managers, Fish and Wildlife
Conservation Officer Service

Policy cross reference:

Volume 4 Section 7 subsection 02

Other cross references:

Wildlife Act, ss. 22, 23, 35 and 110
B.C. Regulation 337/82, O.I.C. 1488 (Permit Regulations)

Purpose:

To establish standard procedures to be followed in the management of raptorial birds concerning

1. issuance of permits for their capture, possession, transport and disposal;
2. classification and marking;
3. capture; and
4. fees.

Table 1. Birds that may be captured for Falconry.
Appendix 1. Application for permit to capture raptorial birds.
Appendix 2. Standard conditions for capture permit.
Appendix 3. Standard conditions for possession permit.

PREPARED BY	AUTHORIZATION		
NAME: W.T. Munro	NAME: D. R. Halladay	SIGNATURE: D. R. Halladay	
POSITION: Bird Specialist	POSITION: Acting Director	DATE EFFECTIVE: Sept. 04, 1986	REVISION NO.: 1

PREAMBLE

It is the policy of the Ministry of Environment to allow use of raptorial birds for falconry purposes. Unless there is evidence that taking birds from the wild will exceed guidelines for harvest set by the Bird and Endangered Species Specialist permits should be issued to qualified persons according to the following procedures.

1. PERMITS

1.1 Permit. No person may take, capture, possess, import, export or transport a live raptorial bird without holding a valid permit. Notwithstanding the issuance of a permit, all raptorial birds captured from the wild in British Columbia remain the property of the Crown. However, birds bred, hatched and raised in captivity or those legally taken in and imported from other jurisdictions will be considered the property of the owner but their possession, use, transfer and export will be subject to all applicable regulations and permits. Fish and Wildlife staff are eligible to hold permits under this procedure except that they may not enter into a breeding agreement under Section 1.8.2 of this procedure. (See Procedure Manual, Volume 4, Section 7, subsection 12.0.1 for details on issuance of permits.)

1.2 Permitted uses of captive raptorial birds.

Use categories (in order of priority, relative to abundance):

1.2.1. Scientific Study (studies of the biology or behaviour of wild or captive birds by qualified scientists);
1.2.2. Falconry (use of free-flying captive birds to take live or artificial prey);
1.2.3. Captive Breeding (production of young from birds held in captivity); and
1.2.4. Public Display - Zoos (displays of captive birds in zoos or game farms).

1.3 Duration of Permit

Permits for the capture, possession and use of all raptors expire March 31st each year unless otherwise specified.

1.4 Residence

Non-residents as defined in the Wildlife Act are not eligible for permits to capture raptorial birds.

1.5 Experience

1.5.1. New residents of the Province desiring recognition of their previous experience with possessing raptorial birds under legal permit (as laid down in 1.5.2. below) must provide written confirmation from the outside issuing management authority.

1.5.2. No person may be issued a valid permit to import, capture or possess a Class 1 raptorial bird or birds unless he has legally possessed a Class 2 raptorial bird for a period of two years prior to his application (for definitions of Class 1 and 2, refer to Section 2).

1.6 Age

No person under 18 years of age may be issued a permit except where parental consent and acknowledgement of responsibility is given in writing assuring that the applicant conforms with all the requirements of the Wildlife Act, its regulations and supporting conditions.

1.7 Possession

1.7.1. No person may be issued a permit to possess import, or capture raptorial birds unless pens (mews) or holding facilities conform to the minimum standards set by the Bird and Endangered Species Specialist of the Fish & Wildlife Branch and are approved by the Regional Manager, Fish and Wildlife.

1.7.2. After December 31, 1983 no person may be issued a permit to possess raptorial birds unless the birds are banded with bands supplied or approved by the Bird and Endangered Species Specialist. Any person keeping raptorial birds that are not so banded shall be

considered to be holding birds illegally and his permit may be cancelled. Rehabilitation birds may be exempted.

1.7.3. Notwithstanding section 1.7.2. a person holding a valid capture permit may have an unbanded bird in his possession from the time of capture to the time of reporting its capture as specified in the capture permit and a person who breeds raptors in captivity may have unbanded captive-bred young on the premises as specified in his permit, until they are four weeks of age.

1.7.4. The holder of a possession permit must notify the appropriate Regional Manager, Fish & Wildlife, when changing the permanent residence of birds held under his permit.

1.7.5. A Regional Manager, Fish and Wildlife, may issue a possession permit to individuals to care for injured raptors until they can be returned to the wild, where, in his judgement the individual has the experience and facilities to do so.

1.8 Disposal

1.8.1. Legally held raptorial birds may be lent, transported, given, received, sold, bought, bartered or exchanged only by the holders of valid possession permits within B.C.

1.8.2. The export of any raptorial bird from British Columbia is forbidden unless authorized by permit. Subject to subsection 1.8.3 the export of Peregrine falcons and Gyrfalcons is prohibited, except for captive-reared birds where the breeder has a standard written agreement with the Bird and Endangered Species Specialist of the Fish and Wildlife Branch.

1.8.3. Birds imported legally from another jurisdiction may be exported from B.C. under permit provided the jurisdiction of origin did not put contrary conditions on the capture or export permit.

1.8.4 Import and export permits may be issued by a Regional Manager, Fish and Wildlife, but only after clearance from the Bird and Endangered Species Specialist.

1.9 Denial

The Fish and Wildlife Branch may revoke or refuse to issue any permit to any person for a period of two years following conviction for an offence relating to raptorial birds. The owner of the birds must be warned 2 weeks prior to revocation or denial, and until such time as the revocation or denial is invoked, the owner may dispose of the birds in accordance with the provisions of this procedure. If the owner maintains the birds after the revocation or denial is invoked, the birds are held illegally and may be seized.

1.10 Visitors

Transport permits honouring foreign or non-resident Canadian raptorial bird licences, permits or falconry permits will be issued for special events (e.g., falconry tournaments, displays, movies, etc.) on a short term basis. Organizations hosting such events are required to notify the Bird and Endangered Species Specialist, Fish and Wildlife Branch, Victoria of their locality and duration at least 60 days in advance.

1.11 Application

Application for capture permits shall be made on an approved application form (Appendix 1) to the Bird and Endangered Species Specialist, Fish and Wildlife Branch, Victoria, and for possession permits to the Fish and Wildlife Regional Manager, Ministry of Environment, in the

Region where the birds are to be kept. Applications are to be approved or denied within 30 days of receipt except in special circumstances. Facilities must be approved before a capture permit will be issued.

1.12 Reporting

All permittees are required to provide a written report complying with the conditions of their permit, on the activity carried out under authority of their permit, within 30 days of expiry date, or earlier if so specified in the permit, said report to include dead or lost birds.

1.13 Issuance of Permits

1.13.1 The Regional Wildlife Biologist, Fish and Wildlife recommends whether or not birds may be captured or possessed subject to the preamble.

1.13.2 The Regional Conservation Officer recommends conditions under which the birds can be captured or possessed as they bear on enforcement.

1.13.3 The Bird and Endangered Species Specialist is responsible for approving, and arranging for the Director to sign, capture permits except for nuisance or injured birds.

1.13.4 The Regional Manager, Fish and Wildlife, is responsible for approving and signing possession permits and for capture permits for nuisance birds. Such permits shall be issued free of charge and the birds must be released unless a regular capture permit is applied for.

1.13.5 No preferential treatment shall be given any applicant.

1.13.6 Provided an applicant is eligible to apply and hold a permit his past activities shall have no bearing on the conditions attached to his permit.

1.13.7 The permittee shall not have to appear in person to the local Conservation Officer prior to collecting

birds, he may in exceptional circumstances (e.g., capturing Gyrfalcons by helicopter) be required to contact by phone or in writing the local Conservation Officer before collecting.

1.13.8 A copy of the "Conditions of Capture Permit for Raptorial Birds" (Appendix 2) must be attached to each capture permit and "Conditions of possession permit for Raptorial Birds" (Appendix 3) must be attached to each possession permit and the body of the permit must indicate that those conditions must be adhered to if the permit is to be valid.

1.13.9 One copy of every possession permit must be sent to the Licence & Permits Officer, Victoria, immediately after it is issued and one copy of every capture permit must be sent to the appropriate Regional Manager immediately after its issue, and if specific to one Conservation Officer District to that Conservation Officer.

1.13.10 Upon request of the applicant, capture permits will generally be valid for a variety of species across a broad area (several management units or whole Region) subject to Section 3.

1.14 Rights of Permittees

1.14.1 Any holder of a valid possession permit (see Appendix 3 for conditions) may temporarily (for less than six months) hold or care for banded birds of other valid permit holders without notifying the Ministry.

1.14.2 Any holder of a valid possession permit may transport within B.C. birds of his own or any other valid permit holder without another permit from the Ministry.

1.14.3 Any person hunting with the use of raptors must conform with the Wildlife Act and Regulations.

2. Raptorial Bird Classification and Marking

For management and administrative purposes, raptorial birds that may be captured in B.C. for use in falconry are in two classes:

2.1 Class I Raptorial birds include those species whose status or use is of special significance socially, administratively or biologically. They are listed in Table 1.

2.2 Class II Raptorial Birds include all other species that may be used in falconry. They are also listed in Table 1.

2.3 All Class I and II raptorial birds in captivity must be banded with bands supplied or approved by the Bird and Endangered Species Specialist.

3. Capture

3.1 The total annual and cumulative permitted capture of any raptorial bird species shall be in accordance with limits set by the Regional Wildlife Biologists of the Ministry of Environment subject to the preamble to this procedure.

3.2 The capture of any raptorial bird shall be carried out by the permittee or by an officer of the Ministry of Environment or by a person who is authorized by a special permit issued by the Director, Fish and Wildlife Branch.

3.3 No person may capture more than two (2) raptorial birds per calendar year.

3.4 A minimum of one young bird must be left in each eyrie or nest. Where there are three or more young birds present, at least two must be left in the nest or eyrie. A minimum of two young must be left in each eyrie or nest of the peregrine falcon and gyrfalcon. Young shall not be transferred from one nest to another to meet the requirements of this subsection.

3.5 The capture of any species for any purpose will not be permitted where the Chief of Wildlife determines that such capture may cause a serious decline in the population or where such capture is determined to be destructive of other and higher benefits and uses.

3.6 The capture of all raptorial birds shall be confined to the young of the year except where adult birds are captured through:

- accidental injury
- causing a nuisance or damage to private property
- a need for scientific purposes

3.7 Special areas and procedures for the capture of certain raptorial bird species may be designated and described in the Capture Permit.

3.8 The capture of raptorial birds is forbidden in urban areas except for nuisance birds.

4. Fees

Fees for the capture, possession and use of raptorial birds are prescribed under the permit regulations. As of August 1, 1983, they are $10 for a capture permit, no cost for a possession permit, $25 capture fee for class 2 birds and for catch and release peregrine falcons, and $200 capture fee for Class 1 birds. There is no charge for import or export permits.

Table 1. Birds That May Be Captured For Falconry

Species	Class*
Peregrine Falcon (Falco peregrinus)**	1
Gyrfalcon (Falco rusticolus)	1
Goshawk (Accipiter gentilis)	2
Cooper's Hawk (Accipiter cooperii)	2
Sharp-shinned Hawk (Accipiter striatus)	2
Red-tailed Hawk (Buteo jamaicensis)	2
Merlin (Falco columbarius)	2
Kestrel (Falco sparverius)	2
Hybreds	2
Legally Imported species not listed	2

*Class 1 birds may only be taken or held under permit by experienced falconers holding a Class 1 permit; Class 2 birds may be taken or held under permit by falconers holding a Class 1 or a Class 2 permit.

** Capture severely restricted as to time and place and may be prohibited entirely in certain years.

(REDUCED)

APPENDIX 1

APPLICATION FOR PERMIT TO CAPTURE RAPTORIAL BIRDS

ALLOW 30 DAYS FOR PROCESSING OF APPLICATION

SEND APPLICATION TO: Bird and Endangered Species Specialist
Fish and Wildlife Branch
Ministry of Environment
Parliament Buildings,
Victoria, B.C. V8V 1X5

TO AVOID DELAYS ALL THE FOLLOWING QUESTIONS MUST BE ANSWERED CLEARLY AND COMPLETELY

PLEASE PRINT

1. Name of Applicant _____ Age_____

2. Address of Applicant _____

_____Telephone_____

3. Time resident in B.C. _____ Years

4. The number of the current permit now held to possess raptorial birds_____
Fish and Wildlife Branch Office where possession permit issued:

_____

Location of birds now in your possession_____

Length of time a permit to possess raptorial birds has been held:

Over 2 years _____ Under 2 years _____

5. Number and species of birds now applied for. (Please read regulations and conditions for capture and possession of raptorial birds and keep your application within the limits set).

_____

_____

6. Location of proposed capture (be as specific as possible):

_____

7. Dates for which permit is requested (for duration of capture expedition only)

_____

8. Proposed use for birds applied for:_____

9. Each separate application to capture for other than approved scientific study purposes, must be accompanied by a permit fee of $10.00; cheque or money order should be made out to "Minister of Finance".

10. I certify the information in this application is correct. False information may result in cancellation of the permit and confiscation of captured birds.

Date of Application_____ Signature of Applicant_____

11. If applicant is under 18 years of age the following declaration of parental consent must be completed before the application will be considered.

I, (full name) _____ hereby give my consent to this application and acknowledge my responsibility to see that the applicant conforms with all the requirements of the Wildlife Act, its regulations and supporting conditions.

DATE_____ SIGNATURE_____
Parent or legal guardian of applicant

APPENDIX 2

CONDITIONS OF CAPTURE PERMIT FOR RAPTORIAL BIRDS

1. Capture is limited to those areas, species and times described in the permit.

2. This permit is not valid in Provincial or Federal parks or Sanctuaries, or in Ecological Reserves.

3. A minimum of one young must be left in the nest of Class 2 raptors and a minimum of two young must be left in the nest of Class 1 raptors. Young may not be moved from one nest to another to meet these requirements.

4. If not otherwise described in the permit the permittee will, within 10 days of capturing a bird, make application to the Regional Manager, Fish and Wildlife, for a possession permit. The prescribed capture fee shall be enclosed with the application.

5. Upon banding the permittee will inform the bander of the location and date of capture.

6. Only two birds may be captured in any calendar year.

7. Live pigeons may be used as decoys for capturing passage birds.

8. Aircraft (including helicopters) may be used to locate and transport eyas birds.

Province of British Columbia
Ministry of Environment

PROCEDURE MANUAL

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SUBJECT: Capture, Possession and Use of Raptorial Birds

APPENDIX 3

CONDITIONS OF POSSESSION PERMIT FOR RAPTORIAL BIRDS

1. Permittee may care for birds of other valid permit holders provided the birds are banded with approved Fish and Wildlife Branch Bands.

2. Permittee may transport his own or other validly banded birds within British Columbia.

3. Permittee shall not provide anyone who is not the holder of a valid possession permit with raptorial birds.

4. Permittee must conform to the Wildlife Act and Regulations when hunting with a raptorial bird.

5. No raptorial birds may be exported from B.C. without an export permit or imported into B.C. without an import permit.

6. Bands are not to be removed from the bird whether it is dead or alive.

7. Permittee will submit a report to the issuing office within 30 days of expiry of his permit listing:

   Number and kind of birds that died
   Number and kind of birds that escaped
   Number and kind of birds traded sold or given away
   Number of and kind of birds received or captured
   Number and kind of birds raised in captivity
   Number and kind of birds still held

8. Permitee may traffic in legally acquired and possessed raptorial birds only with other holders of valid B.C. capture or possession permits.